

## **EXHIBIT B**

APPRAISAL OF ECONOMIC LOSS

Thomas Cullen

Prepared for: Jeanne M. O'Grady, Esq.  
SPEISER KRAUSE  
Counsellors at Law  
800 Westchester Avenue  
Suite 608  
Rye Brook, NY 10573

Prepared by: Gary M. Crakes, PhD

January 3, 2020

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**JOHN MAHER, PhD  
1925 - 2005  
GARY M. CRAKES, PhD**

**January 3, 2020**

**RE: Thomas Cullen**

**Jeanne M. O'Grady, Esq.  
SPEISER KRAUSE  
Counsellors at Law  
800 Westchester Avenue  
Suite 608  
Rye Brook, NY 10573**

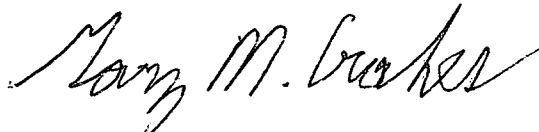
**Dear Ms. O'Grady:**

**The following report on the economic loss of the above named is an objective estimate of the loss in this case, measured as scientifically and accurately as the data permit.**

**If you have questions about calculations or concepts or feel that additional aspects should be explored, please contact us. Exhibits I and II in this report are prepared to be suitable as enlargements for use at trial.**

**If the case is not settled, please schedule time for appearance at trial sufficiently in advance that we may plan accordingly.**

**Respectfully submitted,**

A handwritten signature in black ink, appearing to read "Gary M. Crakes", written in a cursive style.

**Gary M. Crakes, PhD**

**GMC:dc**

## Discussion of appraisal: Thomas Cullen

Thomas Cullen was born [REDACTED] 1970 (1970 [REDACTED]) and died September 11, 2001 (2001.70) at age 31.07 years with life expectancy of 44.94 years and work-life to age 70 of 38.93 years. See Exhibit II.

In this appraisal of the economic loss of earning capacity, we have calculated the lifetime earnings of Thomas Cullen with work-life to age 70 based on a 2001 annual earnings rate of \$88,717 as a New York City firefighter to the completion of 20.00 years of service followed by earnings from alternative employment to age 70. Calculation of the value of earnings as a firefighter based on a 2001 annual earnings rate of \$88,717 results in earnings loss for the 14.40 years to the completion of 20.00 years of service of \$1,532,245 with adjustment for each year in the past by the annual percentage change in general levels of earnings. This value appears as the first entry to the summary, Exhibit I.

Next, we have included the value of earnings from alternative employment from the completion of 20.00 years of service as a New York City firefighter to age 70. Calculation of this value assumes earnings from alternative employment equivalent to earnings as a firefighter. With current estimated annual earnings of \$138,601 and the assumption that the future average annual rate of growth of earnings will be equal to the discount rate, discounted earnings from alternative employment to age 70 are \$3,384,097. With the addition of this value, discounted economic loss is \$4,916,342. See Exhibit I.

Further shown in Exhibit I is a deduction of 25% of gross earnings as an allowance for personal maintenance expenses. (See Consumer Expenditures in 2017, U.S. Department of Labor, Bureau of Labor Statistics, April, 2019.) With this deduction, discounted economic loss is \$3,687,256.

In addition, we have included the value of Thomas Cullen's discounted lifetime pension benefit based on service as a New York City firefighter. With application of an annual

pension benefit in 2016 of \$65,765 and the assumption of a 2% net discount rate, the discounted value of the pension benefit for the 30.54 years of remaining future life expectancy from the completion of 20.00 years of service is \$1,604,490. With the addition of this value, discounted economic loss becomes \$5,291,746. See Exhibit I.

Finally, we have included two additional values. First, we have included the value of fringe benefits calculated at 20% of earnings. (For the average benefit payments in the United States, see Exhibit IV with data from the Bureau of Labor Statistics, U.S. Department of Labor.) Second, we have included the value of Thomas Cullen's household services. Data for the estimate are presented in Exhibit V and are derived from "Time Use During the Great Recession", Mark Aguiar, Erik Hurst, and Loukas Karabarbounis, American Economic Review, August, 2013 and wage rates from the Bureau of Labor Statistics, U.S. Department of Labor. Adjustment and application of the appropriate values provides an estimate of discounted loss of \$322,215, canceling future rates of increase by the discount rate. With the addition of these values, discounted economic loss is \$6,597,229. See Exhibit I.

It is our opinion that the discounted economic loss in this case is \$6,597,229.

## Summary of appraisal: Thomas Cullen

	<u>Discounted values</u>
I Basic earnings as a New York City firefighter to the completion of 20.00 years of service based on a 2001 annual earnings rate of \$88,717	\$1,532,245
II Plus value of earnings from completion of 20.00 years of service as a New York City firefighter to age 70	<u>3,384,097</u>
Subtotal	\$4,916,342
III Less personal maintenance at 25% of earnings	<u>-1,229,086</u>
Subtotal	\$3,687,256
IV Plus value of pension based on service as a New York City firefighter	<u>1,604,490</u>
Subtotal	\$5,291,746
V Plus value of fringe benefits	<u>983,268</u>
Subtotal	\$6,275,014
VI Plus value of household services	<u>322,215</u>
Total net discounted economic loss	\$6,597,229

## WORK-LIFE AND LIFE EXPECTANCY

Thomas Cullen

	<u>Year and fractional equivalent</u>	<u>Number of years</u>
A. Date of birth:		
██████████ 1970	1970 ██████████	
B. As of date of death:		
September 11, 2001	2001.70	
1. Age		31.07
2. Work-life to age 70		38.93
3. Life expectancy		44.94

## Source:

3. National Vital Statistics Reports, 2001,  
U. S. Department of Health and Human Services,  
National Center for Health Statistics, Volume 52, Number 14,  
February 18, 2004.



## Exhibit III

**TABLE 98. Average Hourly Earnings of Production or Nonsupervisory Workers<sup>1</sup> on Private Nonagricultural Payrolls, by Industry Division, 1932-74**

(In dollars)

Year and month	Total private	Mining	Contract construction	Manufacturing			Manufacturing excluding overtime	Transportation and public utilities	Wholesale and retail trade			Finance, insurance, and real estate <sup>2</sup>	Services
				Total <sup>3</sup>	Durable goods	Nondurable goods			Total	Wholesale	Retail		
1932				0.441	0.492	0.412							
1933				.437	.467	.419							
1934				.528	.550	.505							
1935				.544	.571	.520			0.610				
1936				.550	.580	.519			.628				
1937				.617	.667	.566			.638				
1938				.620	.679	.572			.674				
1939				.627	.691	.571			.688	0.484			
1940				.655	.716	.590			.711	.494			
1941				.726	.799	.627	0.691		.763	.518			
1942				.851	.937	.709	.793		.828	.559			
1943				.881	1.048	.787	.881		.898	.606			
1944				1.011	1.105	.844	.933		.948	.653			
1945				1.016	1.090	.886	.949		.990	.699			
1946				1.075	1.144	.995	1.035		1.107	.797			
1947	1.131	1.469	1.541	1.217	1.278	1.145	1.18		0.940	1.220	.838	1.140	
1948	1.225	1.564	1.713	1.328	1.395	1.250	1.29		1.010	1.308	.901	1.200	
1949	1.275	1.717	1.792	1.378	1.453	1.295	1.34		1.060	1.360	.951	1.260	
1950	1.335	1.772	1.863	1.440	1.519	1.347	1.39		1.100	1.427	.983	1.340	
1951	1.45	1.93	2.02	1.56	1.65	1.44	1.51		1.18	1.52	1.06	1.45	
1952	1.52	2.01	2.13	1.65	1.75	1.51	1.59		1.23	1.61	1.09	1.51	
1953	1.61	2.14	2.28	1.74	1.86	1.58	1.68		1.30	1.70	1.16	1.58	
1954	1.65	2.14	2.39	1.78	1.90	1.62	1.73		1.35	1.76	1.20	1.65	
1955	1.71	2.20	2.45	1.86	1.99	1.67	1.79		1.40	1.83	1.25	1.70	
1956	1.80	2.33	2.57	1.95	2.08	1.77	1.89		1.47	1.94	1.30	1.78	
1957	1.93	2.46	2.71	2.05	2.19	1.85	1.99		1.54	2.02	1.37	1.84	
1958	1.95	2.47	2.82	2.11	2.26	1.91	2.05		1.60	2.09	1.42	1.89	
1959	2.02	2.56	2.93	2.19	2.36	1.98	2.12		1.66	2.18	1.47	1.95	
1960	2.09	2.61	3.08	2.26	2.45	2.05	2.20		1.71	2.24	1.52	2.02	
1961	2.14	2.64	3.20	2.32	2.49	2.11	2.25		1.76	2.31	1.56	2.09	
1962	2.22	2.70	3.31	2.39	2.53	2.17	2.31		1.83	2.37	1.63	2.17	
1963	2.28	2.75	3.41	2.45	2.58	2.22	2.37		1.89	2.45	1.68	2.25	
1964	2.36	2.81	3.55	2.53	2.71	2.29	2.44	2.88	1.96	2.52	1.75	2.30	1.94
1965	2.45	2.92	3.70	2.61	2.79	2.36	2.51	3.03	2.03	2.61	1.82	2.39	2.05
1966	2.56	3.06	3.89	2.72	2.90	2.45	2.59	3.11	2.13	2.73	1.91	2.47	2.17
1967	2.68	3.19	4.11	2.83	3.00	2.57	2.7	3.24	2.24	2.88	2.01	2.58	2.29
1968	2.85	3.35	4.41	3.01	3.19	2.74	2.88	3.42	2.40	3.05	2.16	2.93	2.61
1969	3.04	3.61	4.79	3.19	3.38	2.91	3.06	3.64	2.55	3.23	2.30	3.08	2.81
1970	3.22	3.85	5.24	3.36	3.55	3.08	3.24	3.85	2.71	3.44	2.44	3.27	3.02
1971	3.44	4.06	5.69	3.57	3.79	3.26	3.44	4.21	2.86	3.67	2.57	3.42	3.23
1972	3.67	4.41	6.03	3.81	4.06	3.47	3.66	4.64	3.01	3.88	2.70	3.57	3.46
1973	3.92	4.72	6.38	4.07	4.33	3.68	3.89	5.03	3.20	4.12	2.87	3.81	3.74
1974	4.22	5.20	8.76	4.40	4.68	3.98	4.23	5.40	3.47	4.49	3.10		

<sup>1</sup> Data relate to production workers in mining and manufacturing; to construction workers in contract construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services.

<sup>2</sup> Prior data are as follows:

1909... 0.191	1922... 0.482	1927... 0.544
1914... .221	1923... .516	1928... .556
1919... .472	1924... .541	1929... .560
1920... .549	1925... .541	1930... .546
1921... .509	1926... .542	1931... .509

<sup>3</sup> Excludes data on nonoffice salespersons.

<sup>4</sup> Beginning 1947, includes data on eating and drinking places.

<sup>5</sup> 11-month average.

<sup>6</sup> Prior to January 1966, data were based on the application of adjustment factors to gross average hourly earnings. (For a detailed description see the *Monthly Labor Review*, May 1950, pp. 537-540; reprint available, serial No. R 2020.)

Note: Data include Alaska and Hawaii beginning 1959.

## Private Sector

1975	\$ 4.53	1993	\$11.03	2011	\$19.46
1976	4.86	1994	11.32	2012	19.77
1977	5.25	1995	11.64	2013	20.14
1978	5.69	1996	12.03	2014	20.60
1979	6.16	1997	12.49	2015	21.03
1980	6.66	1998	13.00	2016	21.56
1981	7.25	1999	13.47	2017	22.06
1982	7.68	2000	14.00	2018	22.70
1983	8.02	2001	14.53		
1984	8.33	2002	14.95		
1985	8.58	2003	15.35		
1986	8.76	2004	15.67		
1987	8.98	2005	16.11		
1988	9.29	2006	16.76		
1989	9.66	2007	17.43		
1990	10.19	2008	18.08		
1991	10.50	2009	18.62		
1992	10.76	2010	19.04		

## Service Industry

1975	\$4.02	1993	\$10.60	2011	\$19.21
1976	4.31	1994	10.87	2012	19.52
1977	4.65	1995	11.19	2013	19.91
1978	4.99	1996	11.57	2014	20.36
1979	5.36	1997	12.05	2015	20.83
1980	5.85	1998	12.59	2016	21.34
1981	6.41	1999	13.07	2017	21.82
1982	6.92	2000	13.60	2018	22.43
1983	7.30	2001	14.16		
1984	7.64	2002	14.56		
1985	7.95	2003	14.96		
1986	8.16	2004	15.26		
1987	8.49	2005	15.71		
1988	8.88	2006	16.42		
1989	9.39	2007	17.11		
1990	9.71	2008	17.77		
1991	10.05	2009	18.35		
1992	10.33	2010	18.78		

Source: Bureau of Labor Statistics, U. S. Department of Labor

Table 1. Employer costs per hour worked for employee compensation and costs as a percent of total compensation: civilian workers, by major occupational and industry group, September 2018

Compensation component	Occupational group							
	All workers <sup>1</sup>		Management, professional, and related		Sales and office		Service	
	Cost	Percent	Cost	Percent	Cost	Percent	Cost	Percent
Total compensation .....	\$36.63	100.0	\$61.08	100.0	\$26.62	100.0	\$18.87	100.0
Wages and salaries .....	25.03	68.3	41.40	67.8	18.70	70.2	13.48	71.4
Total benefits .....	11.60	31.7	19.68	32.2	7.92	29.8	5.39	28.6
Paid leave .....	2.59	7.1	5.02	8.2	1.79	6.7	0.95	5.0
Vacation .....	1.27	3.5	2.45	4.0	0.90	3.4	0.44	2.4
Holiday .....	0.77	2.1	1.44	2.4	0.53	2.0	0.29	1.5
Sick .....	0.39	1.1	0.81	1.3	0.23	0.9	0.15	0.8
Personal .....	0.18	0.4	0.32	0.5	0.12	0.5	0.06	0.3
Supplemental pay .....	1.21	3.3	2.33	3.8	0.66	2.5	0.36	1.9
Overtime and premium <sup>4</sup> .....	0.28	0.8	0.18	0.3	0.16	0.6	0.17	0.9
Shift differentials .....	0.07	0.2	0.10	0.2	0.03	0.1	0.06	0.3
Nonproduction bonuses .....	0.86	2.4	2.07	3.4	0.47	1.8	0.13	0.7
Insurance .....	3.17	8.7	4.88	8.0	2.49	9.4	1.57	8.3
Life .....	0.05	0.1	0.08	0.1	0.03	0.1	0.02	0.1
Health .....	3.02	8.2	4.61	7.5	2.38	9.0	1.52	8.1
Short-term disability .....	0.06	0.2	0.10	0.2	0.04	0.2	0.02	0.1
Long-term disability .....	0.05	0.1	0.09	0.1	0.03	0.1	( <sup>5</sup> )	( <sup>6</sup> )
Retirement and savings .....	1.95	5.3	3.69	6.0	1.02	3.8	0.85	4.5
Defined benefit .....	1.22	3.3	2.28	3.7	0.52	1.9	0.67	3.5
Defined contribution .....	0.73	2.0	1.41	2.3	0.50	1.9	0.18	1.0
Legally required benefits .....	2.67	7.3	3.75	6.1	1.96	7.4	1.66	8.8
Social Security and Medicare .....	2.03	5.5	3.23	5.3	1.56	5.8	1.12	5.9
Social Security <sup>7</sup> .....	1.61	4.4	2.53	4.1	1.25	4.7	0.89	4.7
Medicare .....	0.42	1.1	0.70	1.1	0.31	1.1	0.22	1.2
Federal unemployment insurance .....	0.03	0.1	0.02	( <sup>8</sup> )	0.04	0.1	0.04	0.2
State unemployment insurance .....	0.14	0.4	0.14	0.2	0.13	0.5	0.13	0.7
Workers' compensation .....	0.47	1.3	0.35	0.6	0.24	0.9	0.38	2.0

Compensation component	Occupational group				Industry group			
	Natural resources, construction, and maintenance		Production, transportation, and material moving		Goods-producing <sup>2</sup>		Service-providing <sup>3</sup>	
	Cost	Percent	Cost	Percent	Cost	Percent	Cost	Percent
Total compensation .....	\$36.20	100.0	\$29.12	100.0	\$39.84	100.0	\$36.05	100.0
Wages and salaries .....	24.21	66.9	19.19	65.9	26.57	66.7	24.75	68.7
Total benefits .....	11.99	33.1	9.93	34.1	13.27	33.3	11.30	31.3
Paid leave .....	1.93	5.3	1.74	6.0	2.57	6.5	2.50	7.2
Vacation .....	0.97	2.7	0.87	3.0	1.33	3.3	1.26	3.5
Holiday .....	0.63	1.7	0.58	2.0	0.89	2.2	0.75	2.1
Sick .....	0.23	0.6	0.22	0.7	0.27	0.7	0.41	1.1
Personal .....	0.10	0.3	0.08	0.3	0.09	0.2	0.18	0.5
Supplemental pay .....	1.12	3.1	1.10	3.8	1.62	4.1	1.14	3.2
Overtime and premium <sup>4</sup> .....	0.75	2.1	0.61	2.1	0.64	1.6	0.22	0.6
Shift differentials .....	0.04	0.1	0.09	0.3	0.09	0.2	0.08	0.2
Nonproduction bonuses .....	0.32	0.9	0.41	1.4	0.88	2.2	0.86	2.4
Insurance .....	3.33	9.2	3.06	10.5	3.75	9.4	3.07	8.5
Life .....	0.05	0.1	0.04	0.1	0.06	0.2	0.05	0.1
Health .....	3.16	8.7	2.90	10.0	3.55	8.9	2.92	8.1
Short-term disability .....	0.09	0.2	0.06	0.2	0.08	0.2	0.06	0.2
Long-term disability .....	0.03	0.1	0.06	0.2	0.05	0.1	0.05	0.1
Retirement and savings .....	2.22	6.1	1.37	4.7	2.00	5.0	1.94	5.4
Defined benefit .....	1.56	4.3	0.78	2.7	1.01	2.5	1.25	3.5
Defined contribution .....	0.66	1.8	0.59	2.0	0.99	2.5	0.69	1.9
Legally required benefits .....	3.40	9.4	2.66	9.2	3.33	8.4	2.55	7.1
Social Security and Medicare .....	2.04	5.6	1.64	5.6	2.26	5.7	1.98	5.5
Social Security <sup>7</sup> .....	1.65	4.6	1.32	4.5	1.82	4.6	1.57	4.4
Medicare .....	0.39	1.1	0.32	1.1	0.44	1.1	0.41	1.1
Federal unemployment insurance .....	0.03	0.1	0.03	0.1	0.03	0.1	0.03	0.1
State unemployment insurance .....	0.20	0.5	0.15	0.5	0.20	0.5	0.13	0.4
Workers' compensation .....	1.14	3.1	0.85	2.9	0.84	2.1	0.41	1.1

<sup>1</sup> Includes workers in the private nonfarm economy excluding households and the public sector excluding the Federal government.

<sup>2</sup> Includes mining, construction, and manufacturing. The agriculture, forestry, farming, and hunting sector is excluded.

<sup>3</sup> Includes utilities; wholesale trade; retail trade; transportation and warehousing; information; finance and insurance; real estate and rental and leasing; professional and technical services; management of companies and enterprises; administrative and waste services; educational services; health care and social assistance; arts, entertainment and recreation; accommodation and food services; other services, except public administration; and public administration.

<sup>4</sup> Includes premium pay (such as overtime, weekends, and holidays) for work in addition to the regular work schedule.

<sup>5</sup> Cost per hour worked is \$0.01 or less.

<sup>6</sup> Less than .05 percent.

<sup>7</sup> Social Security refers to the Old-Age, Survivors, and Disability Insurance (OASDI) program.

Source: Employer Costs for Employee Compensation - September 2018,  
U. S. Department of Labor, Bureau of Labor Statistics,  
December, 2018

## Estimated annual value of household services

	<u>Hours per week spent in non-market work<sup>1</sup></u>	<u>Hourly wage<sup>2</sup></u>	<u>Annual dollar value (2010\$)</u>
MALES	14.13	\$10.17	\$ 7,472
FEMALES	22.12	\$10.17	\$11,698

	<u>Hours per week spent in child care<sup>1</sup></u>	<u>Hourly wage<sup>2</sup></u>	<u>Annual dollar value (2010\$)</u>
MALES	2.89	\$10.17	\$ 1,528
FEMALES	6.42	\$10.17	\$ 3,395

## Sources:

1. "Time Use During the Great Recession", Mark Aguiar, Erik Hurst, and Loukas Karabarbounis, American Economic Review, August, 2013, 103(5): 1664-1696 and Online Appendix.
2. Mean hourly wage, maids and housekeeping cleaners, Occupational Employment and Wages, 2010, Bureau of Labor Statistics, United States Department of Labor.

## Curriculum Vitae

Gary M. Crakes

Birthdate: July 2, 1953

Home: 860 Ward Lane  
Cheshire, CT 06410

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### Education

Ph.D. (Economics) 1984, University of Connecticut

M.A. (Economics) 1976, University of Connecticut

B.A. (Economics) 1975, Central Connecticut State College

### Fellowships and Honors

2019 Biographical listing, Who's Who in America

2004 Honored, Trial Lawyers Care, Association of Trial Lawyers of America, for pro bono economic services, September 11<sup>th</sup> Victim Compensation Fund

1998 School of Business Outstanding Teacher Award

1987 University Teacher of the Year Award

1985 Member, State of Connecticut Senior Economist Examination Committee

1983 Richard D. Irwin Fellowship

1983 University of Connecticut Dissertation Fellowship

1975-1976 University of Connecticut Pre-doctoral Fellowship

### Professional Organizations

American Economic Association

Eastern Economic Association

Omicron Delta Epsilon

National Association of Forensic Economists

American Academy of Economic and Financial Experts

American Association of University Professors

National Association of Business Economics

### Professional Experience

1981 - Economic consultant, Maher, Crakes, and Associates

2011 - Professor Emeritus, Department of Economics and Finance, School of Business, Southern Connecticut State University

1989 - 2011 Professor, Department of Economics and Finance, School of Business, Southern Connecticut State University

1991-1995 Chairman, Department of Economics and Finance, School of Business, Southern Connecticut State University

January 1988-June 1988 Visiting Professor, Department of Behavioral Science and Community Health, School of Dental Medicine, University of Connecticut Health Center

September 1985-August 1989 Associate Professor, School of Business, Southern Connecticut State University (tenured, 1986)

August 1980 - August 1985 Assistant Professor, School of Business, Southern Connecticut State University

January 1979-May 1980 Instructor, University of Connecticut (Hartford)

June 1976-December 1978 Research Assistant, University of Connecticut Health Center. Research Assistant, School of Agriculture, University of Connecticut

## Publications

### Journals

- Crakes, G. and Cottrill, M. "The Connecticut State Income Tax: Progressive, Regressive, and Proportional," Journal of the American Academy of Business, (September, 2007)
- Cottrill, M. and Crakes, G. "A Different Look at "Pay for Performance": Returns to Bench Strength in the NFL," The Business Review, Cambridge, (December, 2004).
- Beazoglou, T., Crakes, G., Doherty, N. and Heffley, D. "Determinants of Dentists' Geographic Distribution," Journal of Dental Education (November, 1992)
- Doherty, N. and Crakes, G. "Estimating the Costs of Public Dental Programs: Mobile Clinics," Community Dental Health (Spring, 1987).
- Crakes, G. "A Comparison of Economic Estimates of Loss with Jury Awards and Pre-verdict Settlements," Business Journal (Fall, 1985).
- Doherty, N. and Crakes, G. "Economic Specification of Cost Estimates in Dental Programs," Journal of Dental Research (June, 1985).
- Doherty, N. and Crakes, G. "Adjusting Social Program Costs for Research and Evaluation Activities," Evaluation Review (August, 1980).
- Doherty, N. and Crakes, G. "Commentary: Reply to Joan Quinn," Inquiry (Summer, 1980).
- Doherty, N., Horowitz, P. and Crakes, G. "Real Costs of Dental Care in Private and Public Practice," Medical Care (January, 1980).
- Doherty, N. and Crakes, G. "The Impact of a Change in Regulation on Costs in an Experimental Program," Inquiry (Summer, 1979).

### Proceedings

- Crakes, G. with Cottrill, M. "The Growth of Student Indebtedness and the Role of Higher Education as a U.S. Response to Globalization," Proceedings of the Global Conference on Business & Economics, Association for Business & Economics Research, October, 2007
- Crakes, G. with Cottrill, M. "The Rising Relative Price of Higher Education and the U.S. Response to Offshore Outsourcing," Proceedings of the New England Business Administration Association, May, 2007.
- Crakes, G. with Cottrill, M. "More on "Pay for Performance"-The Disruptive Effect of Star Power in the NFL," Proceedings of the New England Business Administration Association, May, 2005.
- Crakes, G. with Crakes, A. "Education, Earnings, and the NCAA Student Athlete," Proceedings of the New England Business Administration Association, May, 2004.

Crakes, G. with Cottrill, M. and Crakes, J. "Context for the Medical Malpractice Insurance Debate," Proceedings of the Conference on Emerging Issues in Business and Technology, October, 2003.

Crakes, G. with Thorson, J. and Cottrill, M. "The Impact of Law Firm Concentration on Lawyers' Salaries," Proceedings of the New England Business Administration Association, April, 2000.

Crakes, G. with Thorson, J. and Cottrill, M. "Are Baseball Players Overpaid? An Analysis of Major League Baseball Salaries," Proceedings of the Northeast Business & Economics Association, October, 1998.

Crakes, G. with Cottrill, M. "The Connecticut State Income Tax and the Equal Sacrifice Rule," Proceedings of the New England Business Administration Association, November, 1997.

Crakes, G. with Cottrill, M. "Banking It Before the Bar: Legal Compensation Trends in Major Markets," Proceedings of the Northeast Business & Economics Association, September, 1997.

Crakes, G. with Cottrill, M. "Young and Old Scholars," Proceedings of the Eastern Case Writers Association/Eastern Academy of Management, May, 1994.

#### Abstracts

Crakes, G. and Doherty, N. "Costs of Public Dental Clinics Under Capacity Utilization," Journal of Dental Research (January, 1979).

#### Technical Reports

Doherty, N., Horowitz, P. and Crakes, G. "Analysis of Economic Factors Associated with Providing Incremental Dental Care to Children" for the National Institute of Health, United States Public Health Service, 1978.

#### Other

Economic Consultant, 4<sup>th</sup> edition, 1995, Recovery for Wrongful Death and Injury: Economic Handbook, Stuart M. Speiser and John Maher, Clark, Boardman, & Callaghan, New York, N.Y..

Economic Consultant (with J. Maher), 3<sup>rd</sup> edition, 1988 Recovery for Wrongful Death and Injury: Economic Handbook, Stuart M. Speiser, Bancroft, Whitney/Lawyers Cooperative Publishing, Rochester, N.Y..

Crakes, G.M. "CSUS Chief's Bonus Appalls," Hartford Courant, December 20, 2009.

Crakes, G.M. "Competition Causing Disagreement Over Deregulation," New Haven Register, August 6, 1981.

## Conferences

### Papers Presented

Co-author of paper titled "Do Older Workers Respond to Incentives? Evidence From the Senior PGA Tour" (with M. Cottrill and J. Thorson, presenter) presented at the annual Connecticut State University Research Conference, October, 1999, Eastern Connecticut State University.

Presented co-authored paper titled "The Intra and Inter-State Distribution of Dentists" (with T. Beazoglou and D. Heffley) at the annual meeting of the Eastern Economic Association, March 3, 1989 in Baltimore, MD.

Co-author of paper titled "Determinants of Dentists' Geographic Distribution" (with T. Beazoglou and D. Heffley, presenter) presented at the meeting of the American Association of Dental Research, March 15, 1989 in San Francisco, CA.

Presented co-authored paper titled "Estimating Dental Practice Production Functions with Alternative Output Measures" (with T. Beazoglou) at the annual meeting of the Eastern Economic Association, March 4-7, 1987 in Washington, D.C.

Presented paper titled "A Comparison of Economic Estimates of Loss with Jury Awards and Pre-verdict Settlements" at the meeting of the Atlantic Economic Society, August 29 - September 1, 1985 in Washington, D.C.

Presented co-authored paper titled, "A Re-examination of the Returns to Scale of Dental Practices" (with T. Beazoglou) at the annual meeting of the Eastern Economic Association, March 21-23, 1985 in Pittsburgh, PA.

Presented co-authored paper titled "Economic Specification of Costs of Dental Programs" (with N. Doherty) at the annual meeting of the Eastern Economic Association, March 21-23, 1985 in Pittsburgh, PA.

### Other

Chairperson of session, "Economics" at the annual meeting of the New England Business Administration Association, April, 1993 in New Haven, CT.

Chairperson and organizer of session, "Health Economics" at the annual meeting of the Eastern Economic Association, March 28, 1992 in New York City, NY.

Discussant of paper titled, "Massachusetts Hospitals in the Eighties: Financial Analysis of Large Urban and Other Hospitals" at the annual meeting of Northeast Business Economics Association, November 7, 1991 in Stamford, CT.



Discussant of paper titled, "Female Work Experience: Voluntary vs. Involuntary Labor Force Activity" at the meeting of the National Association of Forensic Economists, March 4, 1989 in Baltimore, MD

Discussant of paper titled "Diogenes' Expenses: The Costs to the Court of Seeking Truth in Medical Malpractice Cases" at the annual meeting of the Eastern Economic Association, March 12, 1988 in Boston, MA.

Discussant of paper titled "Present Value and the Structure of Interest Rates" at the meeting of the National Association of Forensic Economists, March 11, 1988 in Boston, MA.

Chairperson of session, "Topics in Health Economics" at the annual meeting of the Eastern Economic Association, March 11, 1983 in Boston, MA.

Discussant of paper titled "The Nursing Shortage and Its Associated Planning Problems" at the annual meeting of the New England Business and Economics Association, November 5, 1982 in Springfield, MA.

Coordinator and moderator for "The Role of Preventative Care: Is It a Healthy Alternative?" sponsored by the Joint Council on Economic Education, April 23, 1981, Southern Connecticut State College.